



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,311	10/16/2003	Takehito Sugawara	9281-4674	7893

7590 08/08/2007
Brinks Hofer Gilson & Lione
P.O. Box 10395
Chicago, IL 60610

EXAMINER

PARTHASARATHY, PRAMILA

ART UNIT	PAPER NUMBER
----------	--------------

2136

MAIL DATE	DELIVERY MODE
-----------	---------------

08/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/687,311

Applicant(s)

SUGAWARA, TAKEHITO

Examiner

Pramila Parthasarathy

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to remarks filed on June 05, 2007. New Claims 6 – 7 were added. Therefore, presently pending claims are 1 – 7.

Response to Arguments

2. Applicant's arguments filed on June 05, 2007 have been fully considered.

Applicant's arguments with respect to Double patenting rejection of amended Claims 1 – 5 and new claims 6 – 7 over US Patent 7,002,449 are not persuasive and Examiner hereby maintains the Double patenting rejection.

Applicant argues "there is no disclosure in relation thereto in claims 1-2 of U.S. Patent No. 7,002,449" and "Claims 1 – 4 of the present invention are characterized in encryption". Examiner respectfully points out that the applicant has misinterpreting the claim language. Applicant should read the claim as a whole but not just a part of the recitation, in particular, not just one limitation of the claim.

The patent discloses "Immobilizer authentication", wherein the car-mounted device transmits a request signal containing a password and a cipher code (encrypted code, thus encryption", please refer to background of the invention) to the transponder in response to the requested signal. Transponder returns an answer signal containing an answer message and an ID inherent to the transponder in response to the request signal. When the authentication is positive, the car-mounted device permits the starting operation of the ignition". The patent claims "Keyless entry for executing immobilizer authentication wherein immobilizer authentication portion executes a first immobilizer

authentication process extracts a combination of an ID of a mobile device ... and an ID of a transponder from said combination ID preservation portion, and executes again an authentication process for said transponder having the ID so extracted" which is equivalent to instant application claim.

However, Instant application further discloses, "Each of the portable unit and the in-vehicle unit has the unique ID (Identification code) and cipher key (Key) in order to authenticate with each other, and at a communication time, they communicate with each other through a signal obtained by encrypting the data including the ID with the cipher key (please refer to background of the invention). Instant application claims "an encryption unit for encrypting security data (ID code and a cipher key) of the vehicle with a cipher key is interposed between the controlled and the nonvolatile memory of the in-vehicle unit" which is an additional layer to the already patented claims to provide security to the already disclosed and patented claimed method of "keyless entry for executing immobilizer authentication". Progress in the vehicle remote keyless entry and need for such obvious security for storing ID code and a cipher key in the portable unit which are used for authenticating the portable unit, are now disclosed and claimed in the instant application.

Examiner maintains that the instant application claims are an obvious variation of the patented claims (hence non-statutory double patenting) and furthermore it would have been obvious to one having ordinary skill in the art to recognize that encrypting security data (ID code) stops any unauthorized access to the vehicle and thus provide a handling device of security data.

Claims of the instant application are anticipated by patent claims in that the patent claims contains all the limitations of the instant application. Claims of the instant application therefore is not patentably distinct from the earlier patent claims and as such are unpatentable for obvious-type double patenting (*In re Goodman (CAFC)* 29 USPQ2d 2010 (12/3/1993).

Examiner suggests filing terminal disclaimer to overcome double patenting rejection.

With respect to Claim objection, Examiner maintains objection, as the applicant has not amended Claim 1 as suggested by the Examiner. Claim limitation recites, “a portable unit for giving **a control instruction** to the in-vehicle system of the vehicle through communication unit” and “the security data is encrypted with the cipher key and stored into the nonvolatile memory according to the instruction from the controller when the in-vehicle unit is set into a security data register mode”.

“portable unit gives a control instruction” so, please amend the claim to recite “the security data is encrypted by the **encryption controller** with the cipher key and stored into the nonvolatile memory according to **the control instruction** when the in-vehicle unit is set into a security data register mode”

With respect to 35 USC 112 rejection, applicant states that “cipher key” in amended independent claims 1 and 5 correspond to “second cipher key”. Examiner maintains rejection as “a first cipher key” and “a second cipher key” that are disclosed in the instant applications need to be distinctly claimed and thus instant claims need to be

Art Unit: 2136

amended to clarify how “a first cipher key” and “a second cipher key” are used in the claim language. Please also note additional limitation rejections.

With respect to amended and new Claims, applicant primarily argues that Berra (U.S. Patent 5,787,367) does not teach or suggest all the claim limitations are recited in amended independent claims. This argument is persuasive. Prior art rejection is hereby withdrawn.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Amended Claims 1 – 7 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 2 of U.S. Patent No. 7,002,449. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant case, all elements of claims 1 – 7

Art Unit: 2136

correspond to the claims of 1 – 2 of the patent claims, except in the instant claims the element “an encryption unit for encrypting data of the vehicle with a cipher key is interposed between the controller and the nonvolatile memory of the in-vehicle”, is more specific to providing security for the data of the vehicle by encrypting the data with a cipher key.

It would have been obvious to one having ordinary skill in the art to recognize that by encrypting the security data with a cipher key only authorized user can access the vehicle locking and unlocking mechanism thereby stopping any unauthorized access to the secure vehicle data. Therefore, it is clearly that Claims 1 – 2 of patent 7,002,449 anticipate claims 1 – 7 of instant application.

Claim Objections

4. Claim 1 is objected to because of the following informalities: Claim 1 recites, “The handling device and the security data is encrypted with the cipher key and stored into the nonvolatile memory according to the instruction form the controller”. Replace “according to **the instruction** from the controller” with “according to **the control instruction** from the **portable unit**” (**Emphasis added**).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1 – 7 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. “The ID (portable unit ID and in-vehicle unit ID) with a second cipher key by the data encryption controller10. and this is the characteristic points of the invention.” and “According to the invention, since ID is encrypted with the second cipher key and stored in the EEPROM 9, the ID can not be decoded even if the data is read out by others”, (see instant specification paragraph [0026]), **a second cipher key**, critical or essential to the practice of the invention, but not included in the claim(s). See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

Applicant states that “the remote keyless entry (RKE) for locking or unlocking the door locking mechanism of a vehicle with one-way communication from a portable unit to an in-vehicle unit as well as a passive PKE that is two-way communication between a portable unit and an in-vehicle unit” is well known in the art (Description of the Related art, instant specification paragraph [0004 – 0010]. Applicant further discloses, “If ID is stored in the EEPROM directly in the form of its original signal like the convention technique, there is such a fear that the ID may be decoded by others because of the structure of the EEPROM, which is a serious problem form the viewpoint of the security of the vehicle. Together with the first cipher key for a request signal and a response

Art Unit: 2136

signal, the second cipher key is also stored in the ROM 8 whose data is difficult to decode". However, applicant does not include "a second cipher key" and "ID that is encrypted with the second cipher key" in the claims.

6. Claims 1 – 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 5 recite "a signal indicating the ID of the portable unit". There is insufficient antecedent basis for this limitation in the claim.

The dependent claims are rejected at least by virtue of their dependency on the dependent claims.

Claim 7 recites "The handing device of security data according to claim 5," when in fact, Claim 5 is "a handing method of security data of a vehicle ...".

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 2136

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pramila Parthasarathy whose telephone number is 571-272-3866. The examiner can normally be reached on 8:00a.m. To 5:00p.m.. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on 571-232-4195. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR only. For more information about the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pramila Parthasarathy

August 05, 2007.

NASSER MOAZZAMI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100


8,6107